

Opinion of Probable Construction Costs
Preliminary Design, November 2022

Túuši Wána Floodplain Enhancement, Touchet River Mile 14-17
Touchet River, Walla Walla County, WA

Line	Item	Unit	Quantity	Unit Cost	Cost	Notes
1.00	General Requirements			\$	518,000	
1.01	Mobilization, including demobilization	L.S.	1	\$ 500,000	\$ 500,000	Assumes single mobilization to project site, approx. 5% of construction subtotal (2.00, 3.00, 4.00, 5.00, 6.00)
1.02	SPCC Plan, incl. implementation	L.S.	1	\$ 8,000	\$ 8,000	SPCC plan required for in-water work and for HIP Conservation Measures.
1.03	TESC Plan, incl. implementation	L.S.	1	\$ 10,000	\$ 10,000	TESC plan required for HIP Conservation Measures. Incl. temporary site access route improvements.
2.00	Site Access and Layout Survey			\$	153,000	
2.01	Temporary water crossing (bridge)	L.S.	2	\$ 70,000	\$ 140,000	Temporary River crossing at approximately stations 94+00 and 196+00
2.02	Project Layout Survey	L.S.	1	\$ 13,000	\$ 13,000	Includes location, grade, and off-set stakes for construction
3.00	Floodplain, Channel, and Levee Excavation			\$	235,320	
3.01	Clearing, grubbing, and stripping	AC	6	\$ 2,000	\$ 12,000	Removal and stock pile vegetation and topsoil from within excavation footprints.
3.02	Excavation, including near-site stockpile	C.Y.	7,620	\$ 26	\$ 198,120	Excavation of native material, incl. haul to long-term near-site stockpile.
3.03	Remove Existing Riprap	C.Y.	840	\$ 30	\$ 25,200	Remove existing riprap and dispose off-site
4.00	Large Wood Structures			\$	7,882,000	
Materials	Rootwad Log 12-in nominal DBH, 20-ft long bole	EACH	288	-	-	Total for project. Price is included in the per each structure cost.
	Rootwad Log 15-in nominal DBH, 25-ft long bole	EACH	990	-	-	"
	Rootwad Log 15-in nominal DBH, 30-ft long bole	EACH	390	-	-	"
	Log 10-in min. dia. at scaled end, 15-ft long	EACH	240	-	-	"
	Log 10-in min. dia. at scaled end, 20-ft long	EACH	300	-	-	"
	Log 14-in min. dia. at scaled end, 25-ft long	EACH	1,350	-	-	"
	Log 14-in min. dia. at scaled end, 30-ft long	EACH	184	-	-	"
	Vertical Log 12-in min. dia. at scaled end, 20-ft long	EACH	1,440	-	-	"
	Timber Post 10-in min. dia. at scaled end, 15-ft long	EACH	336	-	-	"
	3.5-ft of #8 Threadbar w/ 2 Nut & Washer Sets	EACH	852	-	-	"
	Live Pole Cuttings	EACH	17,480	-	-	"
	Live Cutting Bundles	EACH	936	-	-	"
4.01	Floodplain Large Wood Structure	EACH	46	\$ 10,000	\$ 460,000	Includes; access, excavation, large wood, backfill, and plantings
Materials	Log 14-in min. dia. at scaled end, 30-ft long	EACH	184	-	-	Total for large wood structure type. Price is included in the per each structure cost.
	Whole Willow and/or cottonwood trees	EACH	92	-	-	"
	Live Pole Cuttings	EACH	5,888	-	-	"
4.02	Bank Buried Large Wood Structure	EACH	90	\$ 58,000	\$ 5,220,000	Includes; access, cofferdam, dewatering, excavation, large wood, piles, backfill, and plantings
Materials	Rootwad Log 15-in nominal DBH, 25-ft long bole	EACH	990	-	-	Total for large wood structure type. Price is included in the per each structure cost.
	Log 14-in min. dia. at scaled end, 25-ft long	EACH	1,350	-	-	"
	Vertical Log 12-in min. dia. at scaled end, 20-ft long	EACH	1,080	-	-	"
	3.5-ft of #8 Threadbar w/ 2 Nut & Washer Sets	EACH	540	-	-	"
	Live Pole Cuttings	EACH	3,600	-	-	"
	Live Cutting Bundles	EACH	450	-	-	"
4.03	Apex Large Wood Structure	EACH	30	\$ 51,000	\$ 1,530,000	Includes; access, cofferdam, dewatering, excavation, large wood, piles, backfill, and plantings
Materials	Rootwad Log 15-in nominal DBH, 30-ft long bole	EACH	390	-	-	Total for large wood structure type. Price is included in the per each structure cost.
	Log 10-in min. dia. at scaled end, 20-ft long	EACH	300	-	-	"
	Vertical Log 12-in min. dia. at scaled end, 20-ft long	EACH	360	-	-	"
	3.5-ft of #8 Threadbar w/ 2 Nut & Washer Sets	EACH	120	-	-	"
	Live Pole Cuttings	EACH	1,080			
	Live Cutting Bundles	EACH	150	-	-	"

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Line	Item	Unit	Quantity	Unit Cost	Cost	Notes
4.04	Post Assisted Log Structure (PALS)	EACH	48	\$ 14,000	\$ 672,000	Includes; access, excavation, large wood, backfill, and plantings
Materials	Rootwad Log 12-in nominal DBH, 20-ft long bole	EACH	288	-	-	Total for large wood structure type. Price is included in the per each structure cost.
	Log 10-in min. dia. at scaled end, 15-ft long	EACH	240	-	-	"
	Timber Post 10-in min. dia. at scaled end, 15-ft long	EACH	336	-	-	"
	3.5-ft of #8 Threadbar w/ 2 Nut & Washer Sets	EACH	192	-	-	"
	Live Pole Cuttings	EACH	6,912	-	-	"
	Live Cutting Bundles	EACH	336	-	-	"
5.00	Site Restoration				\$ 1,719,405	
5.01	Riparian Zone Overbank Planting	AC	1.4	\$ 12,000	\$ 16,800	Includes planting of trees and shrubs as outlined on drawings.
5.02	Transitional Zone Planting	AC	37.0	\$ 8,700	\$ 321,900	Includes planting of trees and shrubs as outlined on drawings.
5.03	Upland Zone Planting	AC	102.0	\$ 7,500	\$ 765,000	Includes planting of trees and shrubs as outlined on drawings.
5.04	Seeding and Straw Mulch	AC	14.5	\$ 1,480	\$ 21,460	30 lb/acre BFI native seeds - High Desert Mix
5.05	Invasive Species Management	AC	154.9	\$ 2,000	\$ 309,800	Multi-year treatment, 1 year of cutting, and 2 years of spraying
5.06	Willow and Cottonwood Trenches	LF	6,465	\$ 13	\$ 84,045	Cuttings at 2 foot on center, assuming narrow trenching installation. Installed in Live Stakes Zone.
5.07	Riparian Live Stake Banks	LF	66,800	\$ 3	\$ 200,400	2 rows per LF of bank, 2 foot on center. Installed along Riparian Zone.
6.00	Summary					
6.01	Construction Subtotal				\$ 10,507,725	
6.02	Contingencies (20%)				\$ 2,101,600	Calculated on Construction Sub-Total
6.03	8.1% Walla Walla County Sales Tax (rounded to nearest hundred)				\$ 1,021,400	2
Project Total				\$	13,630,725	Does not include Construction Quality Assurance and Field Engineering, see Note 6.

Notes

1. Contingencies account for potential final design changes, field design changes, and variability in construction costs, rounded up.

2. Sales tax is applied to the Construction Sub-total and Contingencies.

3. Costs are in dollars as of November 2022.

4. Costs for aquatic species salvage of isolated in-water work areas are not included. These efforts are assumed to be completed by the project sponsor (i.e., CTUIR).

5. Basic survey work required for construction (e.g. layout staking, grade setting, etc.) is included in this opinion.
Additional survey work not included in this opinion:
- Pre-construction conditions survey - Full as-built topographic survey
6. An estimate of Construction quality assurance and field engineering activities by the Design Engineer is not included in this opinion, but is highly recommended to budget for.
These services may include:
- Field engineering design adjustments - Review of submittals and product approval
- Construction quality assurance and documentation - Basic as-built drawing development

7. In providing opinions of probable construction cost, the Client understands that the Consultant has no control over the cost or availability of labor, equipment or materials, or over market condition or the Contractor's method of pricing, and the Consultant's opinions of probable construction costs are made on the basis of the Consultant's professional judgment and experience. The Consultant makes no warranty, expressed or implied that the bids or the negotiated cost of the Work will not vary from the Consultant's opinion of probable construction cost.

Abbreviations

AC - acre, C.Y. - cubic yard, incl. - includes, L.F. - linear foot, L.S. - lump sum, S.Y. - square yard